Abstract of the Invention

A method for multiple award optimization bidding in online auctions, including providing, by the buyer, a price ceiling and a tolerance for a resource, soliciting bids, having a unit price and quantity, from suppliers, validating the bids if the bids meet a set of rules, generating an optimal solution, having an optimal quantity and an optimal unit price from at least one supplier, comparing the optimal unit price to a compare value, and replacing the compare value with the optimal unit price if the optimal unit price is less than the compare value.